

CLAIMS

What Is Claimed Is:

Sub A 1. A lighting apparatus for a liquid crystal display comprising:

3 a. an array of light emitting diodes disposed
4 alongside said liquid crystal display for providing
5 illumination thereof;

6 b. light pipes for transmitting light from said
7 light emitting diodes across a plane parallel with said
8 liquid crystal display; and,

9 c. a filter disposed between said array and said
10 light pipes for filtering out infra-red light from said
11 light emitting diodes.

1 2. An apparatus as in Claim 1 wherein said array of
2 light emitting diodes include diodes emitting only red
3 light.

1 3. An apparatus as in Claim 1 wherein said array of
2 light emitting diodes include diodes emitting only blue
3 light.

1 4. An apparatus as in Claim 1 wherein said array of
2 light emitting diodes include diodes emitting only green
3 light.

1 5. An apparatus as in Claim 1 including a pair of light
2 emitting diode arrays disposed on two sides of said light
3 pipes.

1 6. An apparatus as in Claim 5 including a pair of infra-
2 red filters disposed between each of said arrays of light
3 emitting diodes and said light pipes.

1 7. An improved lighting apparatus for a liquid crystal
2 display in the cockpit of an aircraft, said apparatus
3 comprising:

4 a. a pair of light emitting diode arrays disposed
5 alongside said liquid crystal display for providing
6 illumination thereof;

7 b. light pipes for transmitting light from said
8 light emitting diode arrays across a plane parallel with
9 and alongside said liquid crystal display; and,

10 c. filters disposed between each of said arrays and
11 said light pipes for filtering out infra-red light from
12 said light emitting diodes.

1 8. An apparatus as in Claim 7 wherein each of said
2 arrays of light emitting diodes include diodes emitting
3 only red light.

1 9. An apparatus as in Claim 7 wherein each of said
2 arrays of light emitting diodes include diodes emitting
3 only blue light.

1 10. An apparatus as in Claim 7 wherein each of said
2 arrays of light emitting diodes include diodes emitting
3 only green light.

1 11. A method for illuminating a liquid crystal display
2 for viewing by:
3 a. activating an array of light emitting diodes of
4 a first color adjacent light pipes disposed alongside said
5 liquid crystal display; and,
6 b. filtering infra-red light emitted by said array
7 of light emitting diodes.

1 12. The method as in Claim 11 wherein said first color is
2 red.

1 13. The method as in Claim 11 wherein said first color is
2 green.

1 14. The method as in Claim 11 wherein said first color is
2 blue.

1 15. A method for illuminating a liquid crystal display in
2 an aircraft cockpit for viewing by a pilot wearing infra-
3 red goggles, said method comprising:

4 a. activating an array of light emitting diodes
5 adjacent light pipes disposed alongside said liquid
6 crystal display;

7 b. filtering infra-red light emitted by said array
8 of light emitting diodes; and,

9 c. switching colors of said light emitting diodes
10 as required by a pilot of the aircraft.

1 16. The method as in Claim 11 wherein said step of
2 switching colors further includes switching on only those
3 light emitting diodes emitting red light.

1 17. The method as in Claim 11 wherein said step of
2 switching colors further includes switching on only those
3 light emitting diodes emitting blue light.

1 18. The method as in Claim 11 wherein said step of
2 switching colors further includes switching on only those
3 light emitting diodes emitting green light.

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